



**UNITED STATES DEPARTMENT OF COMMERCE**  
**United States Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/458,917 12/10/99 NEWELL

M 07844-353001

021876  
FISH & RICHARDSON  
ROGER S BOROVVOY  
SUITE 100  
2200 SAND HILL ROAD  
MENLO PARK CA 94025

WM02/1024

EXAMINER

SAJOUS, W

ART UNIT

PAPER NUMBER

2672

DATE MAILED:

10/24/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.  
09/458,917

Applicant(s)  
Newell et al.

Examiner  
Wesner Sajous

Art Unit  
2672



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 2 20) ☐ Other:

Art Unit: 2672

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 2-3, 6, and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims recite the limitations of "d-degree" and "d+1" that are not defined by the claims. For examination purposes, "d" in the claims is treated to be of any value greater than zero.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-22 are rejected under 35 U.S.C. 102 (b) as being anticipated by, or in the alternative, under 35 U.S.C. 103(a) as being unpatentable over Hosoya, patent number 5,852,447.

Art Unit: 2672

Considering claims 1-3, 5, and 11-12 Hosoya sets forth a character and figure transformation system. The system includes a transformation processing system comprises an input interface section 2, a transformation designating section 5, receiving input data from the interface section 2, for designating the manner in which characters or patterns are to be transformed. The transformation designation section 5 is deciphered to provide the functionality for the claimed *“receiving relocation information indicative of an intended change in position of a target location on a Bezier curve shape.... governed by control points.”* Numeral 7 designates a transformation section including a transformation calculation operation section 100 which is coupled to the transformation designation section 5. Such is understood to provide the characterization for *“determining new positions for canonical locations on the shape based on predefined intended behaviors of the canonical locations.”* The canonical locations are treated as reference locations on the curve or pattern positions. The target location is noted be any point along the curve as illustrated in figure 12 and 13 or any point designated by the user operator. See figures 1, 13, 16 (B & C). A three-dimensional Bezier curve defining by coordinate points and control points is assumed by the system. Hence, owing to the implementation of the three-dimensional Bezier curve, the shape of the curve is interpreted to have a d-degree curve governed by a d+1 control points for d+1 canonical or reference locations; for instance, two-degree or 2D curve or a symmetrical shaped curve for tree canonicals; and three-degree or 3D curve or a cubical shaped curve for four canonicals. See figure 2A and 3A. See also column 5, line 61 through column 6, line 50, and column 8, line 60 through column 10, line 35.

Art Unit: 2672

Re claims 4 and 13, the claimed “adjusting the control points so that the Bezier shape contains the canonical locations in their new locations,” they are “adjusted using a pre-computed basis coefficient matrix” is obviously met by Hosoya’s disclosure because the coordinate data, after being subjected to the transformational operation, is relocated to such position as to form part of the desired transformation. See figs. 13-14 and col. 11, lines 25-30.

In claim 6, the claimed “rendering the Bezier shape based on the new positions of the  $d+1$  canonical locations” is met by fig. 1, item 11.

As per claim 7, the claimed “target location in its changed positions lies on the rendered Bezier shape” is intrinsically included in Hosoya’s disclosure.

Re claim 8, the claimed “predefined intended behavior is expressed in response functions that define the relationship between changes in positions of target locations and changes in positions of canonical locations” is characterized by the illustration provided at figure 22. See also column 15.

All claimed subject matters recited in the invention of claims 9-10 are essential characteristics necessary for performing the system in Hosoya and would have been obvious over the prior art at the time of the invention was made. Such technique is well known in the art for manipulation of B-Spline curves or in two-dimensional tensor product surfaces manipulation.

In claim 14, the claimed “Bezier shape comprises a surface and in which the position of the target location is determined by forming a mesh on the surface and searching quadrilaterals of the mesh” is characterized by the illustration provided at figure 16B. See also figure 5B.

Art Unit: 2672

In claim 15, the claimed "processing the relocation information as a series of curve relocations" is met by fig. 1, item 100.

Claim 16 recites features equivalent to and performing the functions of claim 1, and is, therefore, subject to rejections for the same reasons and rationale set forth for claim 1, because the system of Hosoya is computer implemented.

Considering claim 17, Hosoya sets forth the following claimed features:

- a) the claimed "receiving relocation information indicative of an intended change in position of a target location on a Bezier curve shape.... governed by control points" is met by fig. 1, item 5;
- b) the claimed "in response to the relocation information, "determining new positions for canonical locations on the shape based on predefined intended behaviors of the canonical locations" is characterized by fig. 1, item 100 including functions for expressing the predefined intended behaviors in scaled response functions that define the relationship between changes in positions of target locations and changes in positions of canonical locations;
- c) the claimed "adjusting the control points so that the Bezier shape contains the canonical locations in their new locations," is obviously met by Hosoya's disclosure because the coordinate data, after being subjected to the transformational operation, is relocated to such position as to form part of the desired transformation. See figs. 13-14 and col. 11, lines 25-30; and the claimed "rendering the Bezier shape based on the new positions of the canonical locations so that the target location in its changed positions lies on the rendered Bezier shape" is intrinsically provided by fig. 1, item 11.

Art Unit: 2672

Regarding claim 18, the claimed “enabling a user to drag a user interface element displayed in association with a Bezier shape to indicate an intended predefined distortion of the Bezier shape.... being governed by control points” is met by fig. 1, item 2; and  
b) the claimed “in response to the dragging, effecting the intended predefined distortion by setting new positions for the control points” is met by fig. 1, item 12. See also figs. 7-9 for possible predefined distortions.

Re claim 19, the claimed “intended predefined distortion is effected by modifying a surface equation to effect the setting of new positions of the control points” is characterized by the teaching provided at col. 11, lines 25-30. See figs. 13-14.

In claim 20, the claimed “distortion is symmetric.” See transformation 2 of fig. 7.

Re claim 21, the claimed “distortion is wave-like.” See transformation 7 of fig. 7.

As per claim 22, the claimed “the user interface element comprises a handle that is constrained to move in a single direction during dragging” is illustrated at figs. 11 and 12.

### ***Conclusion***

5. Applicants attention is directed to the PTO-892 form for references pertinent to applicant’s disclosure.

**Any response to this action should be mailed to :**

**Box**

Commissioner of Patents and Trademarks

Art Unit: 2672

Washington, DC 20231

**or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only)**

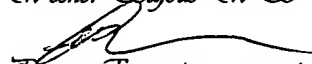
**Or:**

(703) 308-5359 for informal or draft communications, please label "PROPOSED" or DRAFT")

Hand-held delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA , 6th floor (receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wesner Sajous whose telephone number is (703) 308- 5857. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi, can be reached at (703) 305-4713. The fax phone number for this group is (703) 308-6606.

*Wesner Sajous - WOS*  
  
*Patent Examiner, art unit 2672*

*October 17, 2001*



**MATTHEW LUU  
PRIMARY EXAMINER**